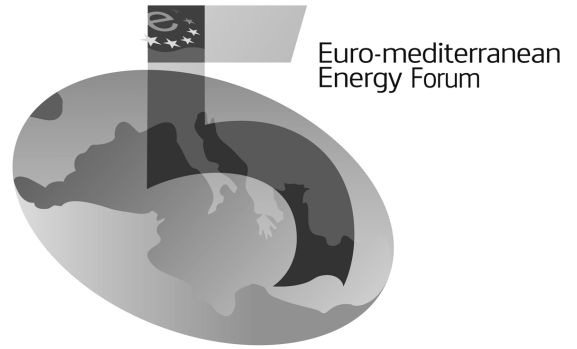


**INTEGRATED ENERGY AND CLIMATE POLICY IN
THE EUROPEAN UNION AND ITS INFLUENCE
IN THE MEDITERRANEAN REGION**





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Main Conclusions

The Mediterranean region is a unique geostrategic area. It includes countries with widely ranging cultures, different political systems and specific energy structures. However, they all seek to develop their economy and achieve the prosperity of their citizens.

Energy plays a vital role in this area. Energy and economic development represent a recurrent binomial which has become increasingly important since the industrial revolution. Ensuring an energy supply which is reliable, competitive and sustainable in time is therefore an essential priority for achieving social welfare.

This fifth edition of the Euro-Mediterranean Energy Forum has been planned with a view to consolidating the regional meeting between energy producing and consuming countries and companies to discuss these issues, favouring the development of cooperation of the Southern and Eastern Mediterranean coastal countries with European Union (EU) countries, at a particularly significant moment in time.

With the support of the Government of Catalunya, organised by the Spanish Energy Club (Enerclub) and the European Institute of the Mediterranean (IEMed), with the collaboration of international institutions, associations and organisations such as the Union for the Mediterranean (UfM), the Spanish Ministry of Foreign Affairs and Cooperation, the Spanish Ministry of Industry, Tourism and Trade, the Spanish Ministry of Environment and Rural and Marine Affairs, the MENA/OECD Investment Programme Energy Task Force and the Mediterranean Energy Observatory (OME), this Forum has made Barcelona the Euro-Mediterranean energy capital. At this Forum, prestigious members of governments and international institutions, as well as senior level representatives of energy companies with a presence or interests in the Mediterranean region, presented different visions and opinions regarding the current situation and the main energy challenges faced by countries in the region. The approach was a constructive dialogue aimed at cooperation, development and enhancing relations between the players involved.

The Mediterranean Sea covers a surface area of 2,51 million square kilometres and is 3.800 km long. The 21¹ bordering countries on three continents have a population of approximately

1. The 21 Mediterranean countries considered are: Spain, France, Italy, Slovenia, Croatia, Bosnia-Herzegovina, Montenegro, Albania, Greece, Turkey, Siria, Lebanon, Israel, The Palestinian Territories, Egypt, Libya, Tunisia, Algeria, Morocco, Cyprus and Malta.



450 million inhabitants. It is easy to imagine the complexity of dealing with Mediterranean countries collectively when we consider the differences that exist: economic differences, with an average per capita income in the European Union's Mediterranean countries of around 30.000 US\$ compared with almost 13.000 US\$ of the Balkans and Turkey and little more than 7.500 US\$ on average in the Mediterranean countries of North Africa and the Middle East²; energy differences, with producing and consuming countries; political differences, as countries with different systems of government coexist; all combined with diverse cultures and different educational systems.

With regards to energy, the more developed countries are net importers of oil and gas while the countries with less social and economic development are exporters. Thus, in 2009, Mediterranean countries of the EU consumed around 450 million toe of hydrocarbons and produced only 15. However, the balance is very different in the Mediterranean countries of the Middle East and North Africa, those with less per capita income, as they consumed just over 200 million toe of oil and gas compared with a production of almost double, around 400³.

Despite these differences, it is highly relevant to consider the Mediterranean space as a joint geostrategic area due to the great interdependence that exists between countries.

The energy resources of the Mediterranean basin contribute significantly to the security of supply of the European Union, whose energy dependence on non-EU countries in 2009 amounted to 83,5% in oil and 64,2% in natural gas⁴. Additionally, the secondary sector (mining and energy, including mainly hydrocarbons) is the basic component of the Gross Domestic Product of Mediterranean countries such as Libya, Algeria and Egypt, providing 65%, 53% and 33% respectively of their economies' total Gross Value Added in 2009⁵. As a result, rather than dependence, we should talk of interdependence and thus a secure supply and a stable demand may complement each other to achieve a harmonious joint development of the region. We will only

2. Data drawn up based on IMF (2011): World Economic Outlook Database: September 2011 Edition, <http://www.imf.org/external/data.htm>. The data on per capita income was calculated by dividing the GDP by purchasing power parity (ppp) by regions by the population of each region. To determine whether a country belongs to the Mediterranean basin the criteria used in the MED-EMIP (<http://www.medemip.eu/WebPages/Common/Default.aspx>) project were followed, also considering Cyprus, Malta and Kosovo. The geographical separation of the data is the following: EU Mediterranean countries: Bulgaria, Cyprus, Slovenia, Spain, France, Greece, Italy, Malta and Portugal; Balkans and Turkey: Albania, Bosnia-Herzegovina, Croatia, Kosovo, Macedonia (FYROM), Montenegro, Serbia and Turkey; North Africa and Middle East: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine (West Bank and Gaza), Syria and Tunisia. The GDP (ppp) data are real data for 2010 except for Algeria, Bosnia-Herzegovina, Lebanon, Libya, Montenegro and Syria for which the data are estimates for that year made by the IMF. The population data are real data for 2010 except for Albania, Algeria, Bosnia-Herzegovina, Cyprus, Egypt, Jordan, Lebanon, Libya, Macedonia (FYROM), Malta, Montenegro, Serbia and Tunisia, for which the data are estimates for that year made by the IMF. No data are available for Kosovo and Palestine.

3. Data drawn up based on OCDE/AIE (2010): IEA Energy Statistics. Data consulted in ENI (2010): O&G World Oil & Gas Review 2010, <http://www.eni.com/og/pages/home.shtml>. The magnitudes were calculated following the geographical separation described in note 1. No data are available for Kosovo and Palestine.

4. European Commission/GD Energy (2011): Country Factsheets (revision 2011), http://ec.europa.eu/energy/index_en.htm.

5. United Nations Statistics Division (2011): National Accounts Estimates of Main Aggregates, <http://data.un.org/Explorer.aspx?d=SNAAMA>. Data calculated by means of dividing the Gross Added Value at current prices in national currency of sections C and E of revision 3 of the International Standard Industrial Classification of all economic activities (ISIC Rev. 3) by the total Gross Added Value of the economy for the year 2009.

be able to meet the needs of Mediterranean citizens through a decisive and intelligent policy of solidarity and sustainability, both economic and environmental, and a commitment to stability of demand and a guarantee of energy supply.

The existence of this great economic and energy interdependence between both shores means that events which affect any of the countries has a very direct influence on the others. This fact can be seen very clearly in some of the events which have taken place in the period of time between the IV Euro-Mediterranean Energy Forum, in March 2009, and this latest edition, and shows the need to develop cooperation mechanisms as a key action for meeting the challenges faced on both shores.

With regard to the Southern and Eastern basin, the recent, unexpected, successive events which started in Tunisia in January 2011 and have come to be known as the “Arab Spring”, have not to date resulted in significant interruptions of supplies, with the protagonists successfully passing the stress test for the time being. There are some exceptions such as the events that took place in Libya which, apart from the political considerations, resulted in the intervention of the International Energy Agency (IEA) for the third time in its history through the release of 60 million barrels of its member countries’ reserves onto the market.

In the future, however, this situation could have serious direct consequences both in the these countries themselves as well as in the international energy sector in general, and the European energy sector in particular. The transition of these countries towards democratic systems is essential in order to ensure adequate beneficial interdependence between both areas. The European Union countries must involve themselves decisively and generously in favour of democratic transitions, as well as for the freedom and progress of the processes of change which have arisen in recent months, providing their experience from past years.

Within the sphere of the events which have occurred in recent years in the countries in the North of the Mediterranean, important decisions have been taken in the EU to provide a new decarbonated energy model. In December 2008, the European Council and Parliament reached a common position regarding the so-called “green package” and, since then, countries have been making a particularly relevant effort towards achieving the three 20 targets for 2020:

- a) a 20% reduction in greenhouse gas emissions compared with those for 1990,
- b) a 20% reduction in energy consumption in the EU by 2020, from the demand that would exist in that date in a business as usual scenario. This goal would be achieved improving energy efficiency, and
- c) an increase of up to 20% in the share of renewable energies in the final energy consumption and up to 10% of biofuels to meet each country’s transport needs.



This Integrated Energy and Climate Policy in the European Union is having, and will have in the future, an increasing relevance and influence on the energy models and policies of North African countries, particularly considering that the fight against climate change is a global challenge, in which all the players have an important role. We should not forget that energy was responsible, worldwide in 2009, for approximately 30.000 million tonnes of CO₂ emissions⁶, and that the Mediterranean region is particularly vulnerable to climate change and its effects, and therefore the mitigation and adaptation efforts in this area should be significant.

Seeking cooperation among countries in the Mediterranean area on climate change and energy policies is of great interest and will reinforce the position of all. European initiatives in this area are being followed by the leading global economies and there is no going back. Stable alliances must be sought to generate economic and social development.

The strategy of development of low carbon technologies in Mediterranean countries can be carried out taking into consideration the natural resources of each geographical area. Countries in the South and East of the Mediterranean offer a tremendous potential for production of electricity from renewable sources; potential that could be complemented with the technological capacity and knowhow of the EU.

The introduction of wind power, solar energy, the use of new biofuels compatible with sustainable development, and so forth, can be planned seeking optimum use. This could also help to provide access to energy in those places where it is presently unavailable, mainly in rural areas, where 85% of the population with no access to electricity lives. According to data for 2009, in North Africa approximately two million people have no access to electricity and four million people rely on traditional biomass as their only energy resource⁷.

Development of renewable energies and greater energy efficiency can thus provide the Southern and Eastern Mediterranean with many benefits: balancing supply with the high growth in demand for electricity forecast in the coming years in the countries in the South and East of the Mediterranean (an increase of approximately 6% a year is expected until 2025); enabling the export of renewable energy to Europe; developing a local industrial framework, the creation of employment and the transfer of knowledge; further growth resulting from economic stimulation due to the great investment the various projects will require; and reinforcing security of supply through sustainable energy for its own economy. In this sense, initiatives such as the Mediterranean Solar Plan, one of the priorities of the Union for the Mediterranean, and the Desertec Industrial Initiative (Dii) together with Medgrid, are of great importance.

6. IEA Statics: CO₂ Emissions from Fuel Combustion (2011)-Highlights-<http://www.iea.org/co2highlights/co2highlights.pdf>

7. OCDE/AIE (2010): World Energy Outlook 2010

However, we should not forget that promoting a balanced energy mix, which should take into consideration the specific features of each area, is one of the most necessary policies to ensure energy supply. It is also necessary to further a gradual introduction of the more innovative energies together with traditional ones seeking the greatest economic efficiency possible. Nor can we ignore energy forecasts such as that of the IEA, which highlight that oil will have a 28% share in the total primary energy demand by the year 2035, while gas will represent 22%. We must remember that hydrocarbons (oil and Liquefied Natural Gas) give flexibility and stability to the system. The cost of energy is also an input for the other productive sectors and the inclusion of any technology in the mix must therefore be carried out applying a cost/profit analysis.

In short, the Integrated Energy and Climate Policy in the EU and its commitments for the year 2020, clearly have an important influence throughout the Mediterranean region. This influence is also particularly relevant with regard to energy interconnection infrastructures, not only for electricity, which are essential for development of the projects planned in the Mediterranean area, but also for the transport of hydrocarbons.

The proliferation of interconnections seems to be one of the most stable models of cooperation between the North and South of the Mediterranean and the one which provides the greatest benefits. The Medgaz project, with a length of 210 km and a transport capacity of 8 bcm of gas per year, owned by companies on both shores of the Mediterranean, officially commenced operations in February 2011 and is one of the most illustrative examples of the international cooperation to which we refer.

Oil and gas pipelines, traditional maritime routes and electricity transmission lines are therefore essential for development. Within this area it will also be necessary to boost smart technologies in these energy transport networks to enable enhanced management of demand and supply. It will also allow greater penetration of renewable energies, as well as enabling electrification of transport, while maintaining the availability of generation of conventional energy and adaptation of the power system.

A major difficulty in providing appropriate infrastructures and technologies lies in maintaining an adequate level of investment, which has proved highly complex in recent years mainly due to the strong deterioration in the current economic situation and the uncertain future outlook. A further difficulty is found in the legal and political uncertainty causing the slowing down or stoppage of a number of projects. This aspect is especially worrying in the field of energy.

Important investments needed to guarantee the energy supply require adequate economic returns over many years. However, the prolonged situation of economic crisis has made access to sources of financing more difficult, requiring greater clarity and security. Energy



investments of all kinds (whether development of oil or gas production fields, installation of electricity production plants, development of less conventional energies, etc.) require a stable, predictable and secure regulatory framework, with agile and transparent procedures, and a significant commitment from governments.

It is therefore necessary to progress in this direction. Countries must be aware that regulatory stability attracts stable investors in the long-term and it will thus be easier to obtain financing for the various projects to be undertaken. This long-term stability represents an economic improvement for citizens. Promoting instruments such as the Working Group of Regulators for Electricity and Gas (MEDREG), established in 2007, is essential in order to achieve these objectives.

The programmes and institutions which promote the financing of projects also play, and will continue to play, an essential role in enabling the necessary projects to be carried out. Programmes such as the Intelligent Energy Programme – Europe II, the Seventh and Eighth Framework Programme for Research and Technological Development, the Trans-European Energy Networks programme (TEN-E), and the European Regional Development Fund (ERDF), together with both national and multilateral credit institutions, such as the European Investment Bank, are vital in order to develop the projects being planned in the South and East of the Mediterranean.

Another element is the need to increase Research, Development and Innovation in all potential energy sources as a way to ensure access to the most efficient technologies throughout the Mediterranean basin. This will enable development of a cleaner, more competitive energy, with a greater management capacity and could even provide a solution to the lack of water in many areas of North Africa.

In the near future, development of many technologies will have reached a level of maturity which will enable them to be applied commercially and these will be essential for economic and social development and for guaranteeing a more sustainable energy model. This is the case of the CO₂ Capture, Transport and Storage technologies or the application of smart technologies.

In recent years, numerous international organisations have been created in which countries, institutions, associations, industries or experts participate with a view to furthering cooperation in the Euro-Mediterranean area, both with regards to energy and in the more general sphere. For example, the Mediterranean Energy Observatory and the European Institute of the Mediterranean were created in 1989 and the Barcelona process commenced in 1995. The latest step in the reinforcement of this cooperation was the creation of the Union for the Mediterranean in July 2008 as a continuation of the Barcelona process. This institutional structure has provided extremely important advances, laying the bases of real cooperation in the area, overcoming the marked differences between countries and regions, furthering

understanding so that the economic and social objectives sought on both shores can be achieved, via sustainable economic development throughout Mediterranean.

However, it is still necessary to further analyse and develop this cooperation, to ensure that there is effective dialogue between public and private institutions, either through multilateral bodies or bilateral agreements between countries, in order to advance towards prosperity.

In short, we can see that, beyond the current crisis, we face a long-term challenge which is related to sustainable growth and the region's integration. This challenge has many facets which will require a special effort from all countries in the Mediterranean area, among others: guaranteeing reasonable levels of demand for producers and security of supply for consumers; obtaining environmental sustainability with regards to minimising greenhouse gas emissions; achieving financing investments in production and transport energy infrastructures; promoting efficiency; and, finally, achieving lasting sustainable economic growth through cooperation towards the creation of a Mediterranean Energy Community.

